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<b>Notice of Allowability</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/680,327		JOHN SCHERCH	
	<b>Examiner</b>		<b>Art Unit</b>	
	WILLIAM D CUMMING		2683	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☒ The drawings filed on 4/5/04 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date <u>4/5/04</u></li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose or make obvious the claimed target alignment system for use by a user with a radiation therapy device and a radiation treatment plan for treating a target within a body of a patient and for aligning a position of the target within the body of the patient to a predetermined position used in the development of the radiation treatment plan. The claimed ultrasound probe for generating live ultrasound images of the target. The claimed position sensing system for indicating the position of the ultrasound probe with respect to the radiation therapy device, adapted to provide a reference location of the target with respect to the radiation therapy device. The claimed computer system including a computer having memory and a monitor with a screen associated therewith, a radiation treatment plan stored in the memory. The computer responsive to the position sensing system and ultrasound probe, and adapted to display on the monitor screen the live ultrasound images of the target in association with representations of the radiation treatment plan. Align the displayed representations of the radiation treatment plan with the displayed live ultrasound images in response to a user input. Capture and store at least two two-dimensional ultrasound images of the target overlaid with the aligned representations of the treatment plan data, the ultrasound probe being disposed in a different geometric orientation for each captured ultrasound image and determine, in response to the alignment, the

difference between the location of the target in the ultrasound images and the location of the target in the representations of the radiation treatment plan.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "*Comments on Statement of Reasons for Allowance.*"

### ***Allowable Subject Matter***

3. Claims 1-25 are allowed.
4. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

### ***Conclusion***

#### **5. Replacement Notice: Copies of Patent Application Records will be Provided in both Electronic and Paper Form**

The Official Gazette notice, published on August 24, 2004 entitled "*All Electronic Copies of Patent Application Records Will Now Be Provided as Certified Copies in Electronic Form*" (1285 Off. Gaz. Pat. Off, August 24, 2004) is hereby rescinded. The USPTO is reinstating, until further notice, the procedures in effect prior to July 30, 2004 for providing certified copies of patent application records with paper certification statements. The USPTO will also offer electronic certified copies of patent application records at the requester's option.

**Certified Copies with Paper Certification**

Unless otherwise requested, certified copies of patent application records provided pursuant to 37 CFR 1.19 (b) will be produced with a paper certification statement, continuing the practice in effect prior to July 30, 2004. The certification statement will include an embossed seal and original signature.

**Certified Copies with Electronic Certification**

Customers ordering certified copies of patent applications as filed or patent-related file wrapper and contents of published applications from the USPTO website will have the option to choose electronic copies with electronic certification. These files include an imaged certification statement as part of a PDF file containing the document TIFF images. These electronic files are digitally signed by the USPTO for authenticity and integrity, and cannot be undetectably modified. Customers may choose to download these electronic files from the USPTO website or receive them on compact disc.

**Paris Convention for the Protection of Industrial Property and Priority**

Irrespective of whether the USPTO provides a paper certified copy or an electronic certified copy, Article 4(d)(3) of the Paris Convention prohibits any country that is a member of the convention from requiring further authentication of the certified copy for purposes of claiming priority under the Paris Convention. (The text of the Paris Convention and a list of its members are available at [www.wipo.int/treaties/en/ip/paris/index.html](http://www.wipo.int/treaties/en/ip/paris/index.html).)

The USPTO is working with other intellectual property offices to encourage the acceptance of priority documents in electronic form with electronic certification. A list of offices and international intellectual property organizations that have agreed to accept electronic certified copies will be posted on the USPTO website soon, and updated regularly.

Questions should be directed to the Office of Public Records by email to [opr@uspto.gov](mailto:opr@uspto.gov) or by telephone at (703) 308-9743.

**6. Consolidated Appropriations Act, 2005 enacted on December 8, 2004**

H.R. 4818, the Consolidated Appropriations Act, 2005 (Consolidated Appropriations Act) was signed by President George W. Bush and enacted into law on December 8, 2004. The Consolidated Appropriations Act revises certain patent application and maintenance fees; provides separate fees for a basic filing fee, a search fee, and an examination fee; and requires an additional fee for any patent application whose specification and drawings exceed 100 sheets of paper (application size fee). The new patent fees are now effective and will remain in effect during the remainder of fiscal year 2005 and during fiscal year 2006. The patent maintenance fee changes apply to any maintenance fee payment made on or after December 8, 2004, regardless of the filing or issue date of the patent for which the fee is submitted. The revised maintenance fees took effect on December 8, 2004. Thus, any maintenance fee paid at any time on (or after) December 8, 2004 is subject to the revised maintenance fee amounts set forth in the Consolidated Appropriations Act.

**Note: If you are paying via the USPTO's Internet Web site, there will likely be a delay in updating the maintenance-fee information on the USPTO's Office of Finance On-Line Shopping Web page. Therefore, if paying on-line, please refer to the updated fee schedule to ensure that you include the appropriate updated fee amount. Maintenance fees must be timely paid in the appropriate amount to avoid expiration of a patent.**

The new basic filing fee (or national fee), search fee, examination fee, and application size fee apply to national patent applications (other than provisional applications) filed on or after December 8, 2004, and to international patent applications in which the basic national fee is paid on or after December 8, 2004. The new provisional application filing fee applies to any provisional application filing fee paid on or after December 8, 2004. The filing fee (or national fee), search fee, and examination fee are due on filing. If the filing fee (or national fee) is paid on filing, but the search fee and/or examination fee is missing, the USPTO will issue a notice requiring that any missing search fee and examination fee (but no surcharge until further notice) be paid within a specified period of time in order to avoid abandonment. Thus, if at least the full basic filing fee under the Consolidated Appropriations Act is paid on or after December 8, 2004, the USPTO will issue a notice requiring any balance of the search fee and the examination fee (but no surcharge).

The remaining patent application fee changes, including the excess claims fees, extension of time fees, and appeal fees, apply to any fee payment made on or after December 8, 2004, regardless of the filing date of the application for which the fee is submitted.

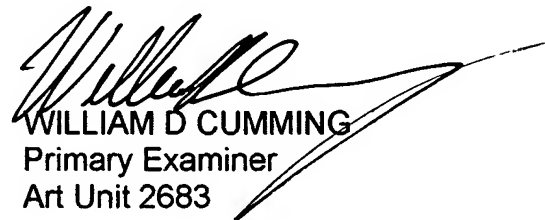
USPTO customers should monitor the USPTO's Internet Web site frequently for current patent fee information.

Payments from foreign countries must be payable and immediately negotiable in the United States for the full amount of the fee required.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **WILLIAM D CUMMING** whose telephone number is **571-272-7861**. The examiner can normally be reached on Tuesday & Wednesday, 10:30am to 8:30pm,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
WILLIAM D CUMMING  
Primary Examiner  
Art Unit 2683

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UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

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